



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**RBE1X56-136-393**  
**Job Sheet 198217**



Part No: RBE1X56-136-393

Job Qty: 1 pcs **5**

**DAS**  
**21**  
**9-59**

Part Name: Puller



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/23/19

Job Tracking No:

Due Date: 9/9/19

**DAS**  
**21**  
**9-59**

Created By: Marie Lajeunesse

Type: SOLD

Description: ORDER 15966

Note: DWG RBE1X56-136-393 Rev 1 IPP Rev. A 19.07.22 New issue DP Verify DD

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation                   | Qty   | Start Date | Due Date | Standard Setup Hrs | Run Hrs | Workcenter/Supplier   | Lead Time | Sign-off |
|-------|-----------------------------|-------|------------|----------|--------------------|---------|-----------------------|-----------|----------|
| 100   | Small Fab - 1               | 1 pcs | 9/9/19     | 9/9/19   | 0.00               | 0.20    | Small Fab - 1         |           |          |
|       |                             |       |            |          |                    |         | Small Fab - 2         |           |          |
|       |                             |       |            |          |                    |         | Small Fab - 3         |           |          |
|       |                             |       |            |          |                    |         | Small Fab - 4         |           |          |
|       |                             |       |            |          |                    |         | Small Fab - 5         |           |          |
|       |                             |       |            |          |                    |         | Small Fab - 6         |           |          |
|       |                             |       |            |          |                    |         | Small Fab - 7         |           |          |
| 110   | QC 5                        | 1 pcs | 9/9/19     | 9/9/19   | 0.00               | 0.00    | QC 5 - 10             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 12             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 17             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 18             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 19             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 22             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 24             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 3              |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 43             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 49             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 51             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 58             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 68             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 9              |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 50             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 30             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 40             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 61             |           |          |
|       |                             |       |            |          |                    |         | QC 5 - 81             |           |          |
| 120   | Packaging 3-1 - Stock - B4B | 1 pcs | 9/9/19     | 9/9/19   | 0.00               | 0.00    | Packaging 3 - 1 - B4B |           |          |
|       |                             |       |            |          |                    |         | Packaging 3 - 2 - B4B |           |          |
|       |                             |       |            |          |                    |         | Packaging 3 - 3 - B4B |           |          |
|       |                             |       |            |          |                    |         | Packaging 3 - 4 - B4B |           |          |
|       |                             |       |            |          |                    |         | Packaging 3 - 5 - B4B |           |          |



Container No: S210641



Part: RBE1X56-136-393

Job No: 198217

Serial No/Batch: S210641

Revision: 1

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.  
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Email: sales@dartaero.com  
www.dartaerospace.com

Date: 08/30/19

**DAS**  
**40**  
**9-59**

AUG 30 2019

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DAS

28

9-89

|                |       |        |           |                        |                 |
|----------------|-------|--------|-----------|------------------------|-----------------|
|                |       |        |           | Packaging 3 - 6 - B4B  |                 |
|                |       |        |           | Packaging 3 - 7 - B4B  |                 |
|                |       |        |           | Packaging 3 - 8 - B4B  |                 |
|                |       |        |           | Packaging 3 - 9 - B4B  |                 |
|                |       |        |           | Packaging 3 - 10 - B4B |                 |
|                |       |        |           | Packaging 3 - 11 - B4B |                 |
|                |       |        |           | Packaging 3 - 12 - B4B |                 |
|                |       |        |           | Packaging 3 - 13 - B4B |                 |
|                |       |        |           | Packaging 3 - 14 - B4B |                 |
|                |       |        |           | Packaging 3 - 15 - B4B |                 |
|                |       |        |           | Packaging 3 - 16 - B4B |                 |
|                |       |        |           | Packaging 3 - 17 - B4B |                 |
|                |       |        |           | Packaging 3 - 18 - B4B |                 |
|                |       |        |           | Packaging 3 - 19 - B4B |                 |
|                |       |        |           | Packaging 3 - 20 - B4B |                 |
|                |       |        |           | Packaging 3 - 21 - B4B |                 |
|                |       |        |           | Packaging 3 - 22 - B4B |                 |
|                |       |        |           | Packaging 3 - 23 - B4B |                 |
|                |       |        |           | Packaging 3 - 24 - B4B |                 |
|                |       |        |           | Packaging 3 - 25 - B4B |                 |
|                |       |        |           | Packaging 3 - 26 - B4B |                 |
|                |       |        |           | Packaging 3 - 27 - B4B |                 |
|                |       |        |           | Packaging 3 - 28 - B4B |                 |
|                |       |        |           | Packaging 3 - 29 - B4B |                 |
|                |       |        |           | Packaging 3 - 30 - B4B |                 |
|                |       |        |           | Packaging 3 - 31 - B4B |                 |
|                |       |        |           | Packaging 3 - 32 - B4B |                 |
|                |       |        |           | Packaging 3 - 33 - B4B |                 |
|                |       |        |           | Packaging 3 - 34 - B4B |                 |
|                |       |        |           | Packaging 3 - 35 - B4B |                 |
|                |       |        |           | Packaging 3 - 36 - B4B |                 |
| 130 QC 21 - FG | 1 pcs | 9/9/19 | 0.00 0.00 | QC 21 - FG - 21        |                 |
|                |       |        |           | QC 21 - FG - 70        | DAS SEP 04 2019 |
|                |       |        |           | QC 21 - SA - 53        | 21              |

Part Op 100 - Assemble as per DWG.  
 Descriptions: 110 - QC5- Inspect part completeness to step on W/O  
 120 - Identify as per dwg & Stock Location:  
 130 - QC21- Final Inspection - Work Order Release

DAS

21

GA133

## Job BOM

| Part / Item       | Component Name                                  | Quantity   | Operation         | Container |
|-------------------|-------------------------------------------------|------------|-------------------|-----------|
| 91310A138         | Hex Head Cap Screw, M10 X 1.5X 80 mm Class 10.9 | Ea (1 ea)  | 100-Small Fab - 1 | 5201115   |
| 92497A450         | Hex Nut                                         | Ea (1 ea)  | 100-Small Fab - 1 | 5091259   |
| RBE1X56-136-393-1 | Washer                                          | pcs (1 ea) | 100-Small Fab - 1 | 5204503   |
| RBE1X56-136-393-3 | Spanner Bolt                                    | pcs (1 ea) | 100-Small Fab - 1 | 504762    |

## Job Allocations

| Operation         | Component Part    | Required | Inventory | Allocated |
|-------------------|-------------------|----------|-----------|-----------|
| 100-Small Fab - 1 | 91310A138         | 1        | 0         | 0         |
|                   | 92497A450         | 1        | 43        | 0         |
|                   | RBE1X56-136-393-1 | 1        | 0         | 0         |
|                   | RBE1X56-136-393-3 | 1        | 0         | 0         |

## Part Specifications

Specifications could not be found.

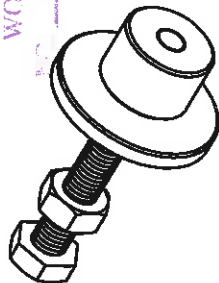
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| REV |  | ECR | REVISIONS                |  | DATE      | INITIAL | APPROVED |
|-----|--|-----|--------------------------|--|-----------|---------|----------|
| 1   |  |     | RELEASED FOR PRODUCTION. |  | 9/12/2016 | RJC     | SM       |

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WITHOUT NOTICE

WORK ORDER  
198213 MLS  
15072J



NOTE:  
REF. EUROCOPTER T/N 1X56-136-393.



PULLER

|                                   |  |                                                        |  |                                                 |  |
|-----------------------------------|--|--------------------------------------------------------|--|-------------------------------------------------|--|
| TITLE                             |  | RBE1X56-136-393                                        |  | REV 1                                           |  |
| DWG NO.                           |  | RBE1X56-136-393                                        |  | REV 1                                           |  |
| MATERIAL                          |  | STEEL                                                  |  | SPEC                                            |  |
| FINISH                            |  | ZINC PLATE                                             |  | DRAWN BY: CLOUGH                                |  |
| CHECKED: DUERFELDT                |  | 2                                                      |  | QA APPR: LINDSAY                                |  |
| 3                                 |  | 1                                                      |  | APPROVED: MACKOVJAK                             |  |
| 1                                 |  | 1                                                      |  | SCALE 1:2                                       |  |
| DATE 7/14/2016                    |  | SHEET 1 OF 3                                           |  | USED ON MODEL EC145                             |  |
| B/O INFORMATION OR SPECIFICATIONS |  | M10 X 1.5 X 80mm CLASS 10.9 (MCMaster-CARR #91310A138) |  | M10 X 1.5 CLASS 10.9 (MCMaster-CARR #92497A450) |  |
| Material                          |  | 4140/4142                                              |  | STEEL                                           |  |
| Description                       |  | WASHER                                                 |  | HEX NUT                                         |  |
| UNIT QTY                          |  | 1                                                      |  | 1                                               |  |
| Part #                            |  | -1                                                     |  | -3                                              |  |
| B/O                               |  | -3                                                     |  | -5                                              |  |
| ASSY QTY                          |  | 1                                                      |  | 1                                               |  |
| B/O                               |  | -5                                                     |  | -7                                              |  |
| ASSY QTY                          |  | 1                                                      |  | 1                                               |  |

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
FRACTIONS  $\pm 1/16$   
DECIMALS  $\pm .01$   
ANGLES  $\pm 1^\circ$   
SURFACES  $\sqrt{125}$

1. BREAK ALL SHARP EDGES  
2. DIMENSIONAL LIMITS APPLY  
3. DIMENSIONAL LIMITS PER  
ASME Y14.5-2009

Entered: \_\_\_\_\_

Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / ROUTE UPDATE**

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |              |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------|--|
| Job: _____<br><br>Part No. _____<br><br>Date: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | Sequence #: _____<br><br>QTY Affected: _____ |  | DISPOSITION<br><br><div style="display: flex; justify-content: space-between;"> <div>           Rework <input type="checkbox"/><br/>           Scrap <input type="checkbox"/><br/>           Use-as-is <input type="checkbox"/> </div> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div> |  | DEPARTMENT/PROCESS<br><br><div style="display: flex; justify-content: space-between;"> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div> |  | MRB (QSI042) |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                              |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |              |  |
| Root Cause<br><br><div style="display: flex; justify-content: space-between;"> <div>           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Preservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div>           Pressure/Forced <input type="checkbox"/><br/>           Bending <input type="checkbox"/><br/>           Crushing <input type="checkbox"/><br/>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/><br/>           Mislabeled <input type="checkbox"/> </div> <div>           Contamination <input type="checkbox"/><br/>           Misaligned/off center <input type="checkbox"/><br/>           BOM/Route <input type="checkbox"/><br/>           Broken/Damage/Defect <input type="checkbox"/><br/>           Incomplete/Unclear Instructions <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/> </div> <div>           Power Loss/Surge <input type="checkbox"/><br/>           Folio/Program <input type="checkbox"/><br/>           Grain Direction <input type="checkbox"/><br/>           Weld <input type="checkbox"/><br/>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set/Set-up <input type="checkbox"/> </div> <div>           Positioned Wrong <input type="checkbox"/><br/>           Outside Tolerance <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Misread <input type="checkbox"/> </div> </div> |  |                                              |  | Completed By<br><br>Lead hand / Supervisor<br><br>QC / QA Coordinator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |              |  |